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WASTE MANAGEMENT SYSTEM STUDY

INFORMATION REPORT FOR M.A.G. & C.A.G.

November, 1975



For more information write
or telephone:

Ontario Ministry of the Environment,
Kingston - Bob Watson,
133 Dalton Street,
549-4000

Belleville - John Tooley,
14 Victoria Street,
962-9208

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THE QUINTE-THOUSAND ISLANDS WASTE MANAGEMENT SYSTEM STUDY

INTRODUCTION

This is the first of several information sheets which the Ministry of the Environment will distribute for public use during the course of the Quinte-Thousand Islands Waste Management Systems Study. We hope that this information is useful and encourages public involvement in the study. If you have any questions or comments, please contact us at the addresses and phone numbers given in the front and the back of this information sheet. It is the Ministry's intention that all those who are interested in involving themselves in the study should have an opportunity to do so.

In this information sheet we describe the problem of waste management and the approach the Provincial Government is taking. We then describe the particular problems in the Quinte-Thousand Islands area and the possibilities offered by waste management and resource recovery. We describe the study process in general and stage one - the collection of information - in particular.

It is the firm policy of the Ministry that there be full public participation in all studies of this kind. In the case of the Quinte-Thousand Islands Waste Management Systems Study, we have made specific provisions for the full involvement of all the municipalities in the study corridor, all interested community and special interest groups, and all interested citizens. We welcome all comments and suggestions regarding both the study itself and the forms of public participation described in the information sheet.

BACKGROUND

The problem.

Very simply, the problem is that Ontario generates about eight million tons of solid waste a year, or about 4 pounds of solid waste per person, per day. That is too much garbage, particularly if we consider the implications in terms of population growth over the next decade. In October, 1974 the Honourable William G. Newman, then Minister of the Environment,

announced plans to develop a Resource Recovery Program for Ontario. This decision was made because of two critical problems:

1. The ever increasing volume of waste produced by society, and
2. The need to conserve resources.

The only ultimate solution to the mounting problems of solid waste is to reduce substantially the amount of waste produced, and to use every means possible to recover resources - such as metal, paper, glass - from waste.

To date, the waste management regulations have been successful in reducing the number of landfill sites across the province, and in improving their quality.

However, a much broader program is needed in order to achieve substantial improvement in the situation. One important step is to plan for complete waste management systems throughout broad geographic areas, cutting across political boundaries. Only by reducing the very large number of small, individual landfill operations and by planning over broad areas can we attain the benefits and economies of scale and introduce new and improved waste treatment and disposal methods.

The purpose of the study.

This study is intended to develop a plan for a waste management system within the Quinte-Thousand Islands Corridor, a system which will probably incorporate resource recovery. We hope to develop recommendations for both current and future waste management systems which are socially beneficial, economically feasible and politically acceptable.

Who is involved in the study?

This study is being carried out by the Ministry of the Environment in close consultation with all affected municipalities. A Municipal Advisory Group is being established on which all the municipalities will be represented, and this Advisory Group will work closely with the Ministry's study team.

The study team is made up of Ministry representatives from both the Southeastern Regional Office and the Resource Recovery Branch, along with a consulting group: Cambrian Facilities Consultants Limited, for engineering studies; Earl Berger Limited, for Community studies and local consultation; Quasar Systems Limited, for project management and systems analysis.

All interested community organizations and special interest groups will be able to be involved through a Citizen Advisory Group which is being formed, and which will meet with the study team at regular intervals throughout the study.

Interested organizations and groups which have not already been approached and which would like to participate in the study should contact the study team through the Ministry's offices in either Kingston or Belleville. Addresses and phone numbers are given at the front and back of this report.

Individual citizens will have a number of opportunities to become involved, and these will be advertised during the course of the study. Those who wish further information should write or telephone the Ministry at either the Kingston or Belleville offices.

THE QUINTE-THOUSAND ISLANDS STUDY CORRIDOR

The study area.

Six areas have been chosen in Southern Ontario for resource recovery plant studies. The Quinte-Thousand Islands Corridor is one of these study areas.

It includes all the municipalities along the MacDonald Cartier Freeway running from Trenton through to Gananoque, the towns and cities in between and the Counties of Prince Edward, Hastings, Lennox and Addington, and Frontenac.

The Problem.

In 1974 there were 250,000 people in the study corridor and they produced about 4 pounds of garbage per person per day. By 1994, assuming there are no major popula-

tion increases in the study corridor, approximately 200,000 tons of garbage will be produced per year. Using the figures which the municipalities have provided us, we estimate it costs the municipalities between 1 and 1.5 million dollars a year to dispose of garbage in the study area. To put the situation in another perspective, assuming there are 95,000 households in the study area, it costs the municipalities approximately \$13.00 per household per year to collect and dispose of the waste in the study corridor. This is apart from the personal or individual costs which households have to bear for garbage collection and disposal, in the rural areas where households may have to pay for private garbage collection or bear the cost of driving to and from the landfill site to dispose of their waste.

The municipalities within the Quinte-Thousand Islands study corridor share a number of common problems; which are:

- a. The difficulty of locating disposal sites that have minimal impact on the environment, are technically and economically feasible, and are acceptable to the public.
- b. Increased municipal costs due to higher Provincial standards for waste management. This is especially true for the smaller municipalities and sparsely populated rural areas.
- c. The difficulty of inter-municipal coordination and integration of waste management practices over a broad area.
- d. The need to protect natural resources, land, air and water, for more effective and desirable uses.

Also the City of Kingston has expressed interest in new waste management systems, including resource recovery.

WASTE MANAGEMENT AND RESOURCE RECOVERY

What is Waste Management?

Very simply stated, waste management deals with all aspects of handling waste from the time it is produced

to the time it is finally disposed of in one form or another. A total waste management system has several components:

1. The Collection of Waste.

This is usually carried out by the Municipality or private collectors; in rural municipalities, households often take their waste to the municipal landfill sites.

2. Transfer Stations.

Sometimes, especially in urban areas, the waste is taken to a transfer station where it is compacted and transported to the various sites in specially designed vehicles.

3. Disposal Sites.

Much of the waste today is disposed of in landfill sites.

4. Resource Recovery Plants.

These are plants in which the waste is sorted and processed to recover usable materials such as metals, glass, fibres and organic materials.

What is Resource Recovery?

Resource recovery is the recovery of usable materials from waste. Resource recovery plants can have two sections.

1. Front-end Section

The techniques for front-end processing are well developed and usually include:

- shredding the waste to uniform size,
- magnetic separation of ferrous metals, such as iron and steel.

Shredding the waste and separation of the ferrous reduces the volume of the waste which has to go to landfill. This extends the life of the landfill site and reduces the environmental impact of the waste on the land. Ferrous metals can be sold to recover the economic value and conserve resources.

2. Back-end Section

Techniques for back-end processing are less well

developed, and research and experimentation are going on. Back-end processing is intended to provide additional and more refined separation of waste, including:

- air classification of paper and light plastics for fiber fuel
- the separation of non-ferrous metals, such as copper and aluminum
- the separation of glass by colour
- further air classification (heavy plastics)
- composting of organic material.

In the future when markets can be established and the technical feasibility proven reliable, these processes will be added to the initial facility.

WHAT HAPPENS IN THE STUDY?

The study will move through four stages, in the first, the study team will collect information. In the second stage, the study team will develop some alternative waste management systems for discussion. In the third stage, these alternatives will be evaluated. In the fourth stage, the study team will recommend a preferred waste management system which may or may not include a resource recovery plant depending upon what we find in the study and our discussions with the local municipalities.

The municipal councils play a key role in all four stages as do interested community organizations, special interest groups and citizens. The municipalities and the others will be asked to help provide the information, develop alternative systems for discussion, evaluate these systems and discuss what seems to be the best waste management system for the study corridor.

THE FIRST STEP - INFORMATION

We have to collect information on solid waste in the study corridor: Where does it come from, how much is there and what kind is it? What are the current methods of waste collection and disposal? Where are there suitable landfill sites (existing and potential), suitable areas for transfer stations, suitable areas for resource recovery plants? What are the transportation alternatives? What and where are the

markets for recovered resources such as steel, glass, fiber?
What are the costs of existing waste disposal?

We have to collect information on the people, places and communities in the study area, on existing and projective population growth, industrial and commercial growth, existing developemnt policies and plans, local constraints and restrictions.

We have to collect information on the opinions, attitudes and preferences of the local communities and people.

To collect all this and other information, we need the help and advice of all the municipalities and their citizens.

THE SCHEDULE

The first meetings of the Municipal Advisory Group will be held in November and early in December. These meetings will be followed by a meeting of the Citizens Advisory Group. Any community organization or special interest group which is interested in becoming involved is welcome to join the Citizens Advisory Group and to attend these meetings. In addition, interested citizens will be asked through local newspaper advertising to send their comments to the study team.

We expect to hold the second cycle of meetings to discuss alternatives in February. A third cycle of meetings will be held in the Spring to evaluate the alternatives.

This information sheet and all other information pertinent to the study will be distributed to key points across the study corridor and will be available to all interested groups of citizens.

CONTACT US

If you want extra copies of this information sheet or other study information, if you have any questions or comments or if you wish to participate in the study, please contact the study team at the following address:

Belleville - John Tooley, Senior Environmental Officer
14 Victoria Street, K8N 1Z5
962-9208

Kingston - Bob Watson, Senior Environmental Officer
133 Dalton Street, K7L 4X6
549-4000

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